

**A B S T R A C T**

The invention relates to molecular biology and bioorganic chemistry and concerns compositions for immobilising modified oligonucleotides, proteins, nucleic acids and any other molecules carrying unsaturated groups in a hydrogel for producing microchips by means of a photo-induced copolymerisation. Said invention also relates to the production of microchips and a polymerase chain reaction (PCR) on a chip which are used in molecular biology for sequencing and mapping DNA, detecting mutations and for an entire range of medical applications.